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SUGHRUE-265550 2100 PENNSYLVANIA AVE. NW WASHINGTON, DC 20037-3213			EXAMINER HYLINSKI, ALYSSA MARIE	
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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/694,006  
Filing Date: October 28, 2003  
Appellant(s): SHIBAHASHI ET AL.

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Travis B. Ribar  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 12/10/09 appealing from the Office action mailed 7/20/09.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

4,503,177	REID et al.	3-1985
5,436,115	MULLIS	7-1995
2,460,221	GORDON	1-1949

5,208,132	KAMADA et al.	5-1993
2002/0114956	TOMONAGA et al.	8-2002

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

***Claim Rejections - 35 USC § 103***

Claims 1, 3, 6-7 and 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reid (4503177), Mullis (5436115), Gordon (2460221) and Tomonaga (2002/0114956). Reid discloses an element and a method for alternately expressing a color-memorizing photochromic function of the element (column 1 lines 6-21). The element has a photochromic layer that maintains a coloring state by developing a color through the irradiation of light at the appropriate wavelength such as in ultraviolet rays (column 3 lines 58-68, column 11 lines 9-16) and changes to a decolorized state through its de-colorization by the irradiation of visible light (column 1 lines 38-46 and column 4 lines 18-22). The coloring state would be visible in well lit areas (column 11 lines 9-16). The photochromic layer can be coated on a substrate (column 3 lines 52-64) and has pigments or other additives that are allowed to coexist therein (column 3 lines 58-64). Mullis discloses a sheet or film toy element having photochromic properties on which templates can be arranged to create interesting visual displays (column 19 line 67 – column 20 line 4 and column 20 lines 29-50). It would have been obvious to one of ordinary skill in the art from the teaching of Mullis to utilize the element of Reid as a toy element for placing templates in order to create an interesting and visually appealing device that could entertain a user. Gordon discloses a method

Art Unit: 3711

for alternately expressing a luminescent function in a toy element by arranging a sheet-shaped means (25) under a contacted or non-contacted condition (Figs. 3 & 4) and wherein the sheet-shaped means contains a light-shading pigment (column 2 lines 54-57) capable of shading at least ultraviolet rays (column 2 lines 54-60 and column 3 lines 1-2). The toy element has a light effected layer (13) coated on a sheet (12) which is illuminated (column 2 lines 1-4) through the irradiation of ultraviolet rays or sunlight containing ultraviolet rays by means of an ultraviolet irradiator (column 2 lines 5-7) and can be changed into a non-illuminated state by the irradiation of visible light when the sheet-shaped means contacts the toy element thereby cutting off the ultraviolet rays and causing irradiation of visible light (column 3 lines 7-16). Although, Gordon does not disclose a photochromic element it does disclose a toy using an element that is activated or deactivated in response to different lights and as such teaches the use of a sheet-shaped means for causing a change in a light sensitive element by affecting the light to which the element would be exposed. It would have been obvious to one of ordinary skill in the art from the teaching of Gordon to use a sheet-shaped changing means with the device of Reid and Mullis in an attempt to provide an improved toy device, as a person with ordinary skill has good reason to pursue the known options within his or her technical grasp. Furthermore, it would have been obvious to utilize the sheet-shaped means to change the effect of a light sensitive material toy such as the light sensitive photochromic toy element of Reid and Mullis for the predictable result of influencing the visual effect of the device. The combination as described allows for the sheet-shaped means to function as a color-changing means to help maintain the

Art Unit: 3711

changed states of the element by influencing the type of light the element is subjected to so as to express a function to memorize and maintain coloring and decolorizing states alternately. The references disclose the basic inventive concept, substantially as claimed, with the exception of the photochromic layer containing a diaryl ethene photochromic compound. Tomonaga discloses that diaryl ethane is an organic compound that exhibits photochromic properties (page 1 paragraph 4). It would have been obvious to one of ordinary skill in the art to use diaryl ethene as the photochromic compound since it has been held that a mere selection of known materials on the basis of suitability for the intended use would be entirely obvious. *See in re Leshin, 125 USPQ 416 (CCPA 1960)*. With regard to claims 6 and 7 and the photochromic layer including a thermoplastic resin and the color-changing means including a transparent plastic, the examiner notes that mere selection of known materials as recited in claims 6 and 7, on the basis of suitability for the intended use would be entirely obvious. Therefore, it would have been obvious to one of ordinary skill in the art to provide the references with the materials recited in the claims in order to use known materials suitable for the intended use. *See in re Leshin, 125 USPQ 416 (CCPA 1960)*.

Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reid, Mullis, Gordon, Tomonaga and Kamada (5208132). The references disclose the basic inventive concept, substantially as claimed, with the exception of the photochromic layer having a photochromic compound that is included in microcapsules and includes a binder resin. Kamada discloses an organic photochromic compound that is microencapsulated (column 2 lines 30-34) and can be combined with a binder resin

Art Unit: 3711

(column 5 lines 38-44) for use with a plurality of articles such as toys (column 6 lines 20-27). The photochromic material can also be combined with a dye or pigment (column 8 lines 11-15). It would have been obvious to one of ordinary skill in the art from the teaching of Kamada to modify the coating of the references so as to include microcapsules and binder resin in order to be able to apply a photochromic material to an object that has a high resistance to light when subject to repeated use making it more durable (column 2 lines 22-29).

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Reid, Mullis, Gordon and Tomonaga. The references disclose the basic inventive concept, substantially as claimed, with the exception of an image arranged inside the sheet-shaped compact. At the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to include an image because Applicant has not disclosed that an image provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well without an image because the color-changing means would be able to change the color of the toy while being irradiated with light.

#### **(10) Response to Argument**

In response to applicant's arguments I , III and IV that Gordon is nonanalogous art since the light sensitive material used in Gordon has a luminescent or glowing property as opposed to the photochromic or color change property of the other references, the examiner notes that it has been held that a prior art reference must

Art Unit: 3711

either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Gordon relates to a way of affecting the type of light to which a light sensitive substrate is subjected in order to produce a desired change or effect. Furthermore, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). In this case Gordon is being used to disclose using a sheet means to change the kind of light exposure received by a light sensitive substrate. While Gordon does disclose a different substrate that produces a different effect the teaching of applying a sheet to affect light exposure in an application where the substrate is modifiable by different types of light is still disclosed. The examiner further notes that applicant's arguments with respect to Gordon not disclosing a color change, not being visible in well-lighted areas and the light not being maintained, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Gordon is merely being used to show the use a sheet means to change the kind of light exposure received by a light sensitive substrate to effect changes therein.



In response to applicant's argument II that Mullis is not combinable with the other references since it discloses an irreversible color change and it would be unobvious to substitute or replace a reversible color change with an irreversible color change. The examiner notes however that no substitution or replacement of the color change material is being implied in the above rejection. Mullis is merely being used to disclose the use of photochromic devices as toys. The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). In this case, Mullis is merely being used to teach that photochromic sheets are usable as toys.

In response to applicant's argument V that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Art Unit: 3711

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Alyssa M Hylinski/

Examiner, Art Unit 3711

Conferees:

/Gene Kim/

Supervisory Patent Examiner, Art Unit 3711

/XUAN M. THAI/

Supervisory Patent Examiner, Art Unit 3715